

ABSTRACT OF THE DISCLOSURE

A motor comprises: coil on/off switching devices for switching between an on-state wherein current is supplied to the coils, and a first off-state wherein the coil terminals are open-circuited or a second off-state wherein the coil terminals are short-circuited; and a coil current control device for controlling switching operations of the coil on/off switching devices according to commands input to the motor. In the event that motor movement with great mechanical compliance is required, the ratio of the period of the first off-state is increased, and on the other hand, in the event that motor movement with great viscosity resistance is required, the ratio of the period of the second off-state is increased. This solves the problems of torque loss and cogging during a period wherein no current is applied to the coil.